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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/985,380 12/04/97 COOPER

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023494 WM02/1206  
TEXAS INSTRUMENTS INCORPORATED  
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EXAMINER

SNIEZEK, A

ART UNIT

PAPER NUMBER

2651

DATE MAILED:

12/06/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

MS

# Office Action Summary

Application No.  
**08/985,380**

Applicant(s)  
**Cooper**

Examiner  
**ANDREW L. SNIEZEK**

Group Art Unit  
**2651**



☒ Responsive to communication(s) filed on Sep 26, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-21 is/are pending in the application.

Of the above, claim(s) 1-10 and 19-21 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 11-18 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. The following action is taken in view of the amendment filed 9/26/00. In this amendment claim 21 has been amended to depend upon nonelected claim 19. Claims 1-10 and 19-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention.

The requirement is still deemed proper and is therefore made FINAL.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-13 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Morris.

Note for example figure 2 of Suzuki et al. along with corresponding disclosure which teaches the limitations including ADC, DAC, a digital signal processor and power amplifier which operate substantially as set forth in claims 11-13 and 16-18. Independent claim 11 has been amended to include that the digital processor operates "based on control characteristics of said hard disk drive". Although such a feature is not specifically taught by Suzuki et al., such a feature is notoriously well known as seen from Morris, (column 9) to achieve a desired performance level of the drive. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of disk drive characteristics as taught by Morris in the processing operation as taught by Suzuki et al. to achieve a desired performance level of a drive.

4. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. and Morris as applied to claims 11-13 and 16-18 above, and further in view of official notice.

Suzuki et al. and Morris as applied teach the claimed invention as discussed above.

Claims 14 and 15 further set forth that the digital processor and the digital-to-analog convertor are placed on a single semiconductor material, i.e. silicon. It is notoriously well known in the art to integrate plural circuits into a single semiconductor chip (silicon based) to reduce manufacturing cost and to increase reliability. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the corresponding circuit arrangement in Suzuki et al. and Morris as applied such that they are incorporated on the same silicon chip to reduce manufacturing cost and to increase reliability.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lewis and Hunter were found during an updated search of modeled disk drives.

6. Applicant's arguments with respect to claims 11-18 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Snizek whose telephone and VoiceMail number is (703) 308-1602.

The appropriate fax phone number for the organization (Group 2650) where this application or proceeding is assigned is (703) 308-9051.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

  
**Andrew L. Snizek**  
**Primary Examiner**  
**Art Unit 2651**

A.L.S.  
December 4, 2000